

Figure 1 consists of 12 histograms arranged vertically, labeled $k=0$ through $k=11$. Each histogram shows the frequency of the number of non-zero elements in the vector x_k . The x-axis for all plots is 'Number of non-zero elements' with ticks at 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. The y-axis is 'Frequency' with ticks at 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10. The distributions are as follows:

- $k=0$: Peak at 0 (frequency 10).
- $k=1$: Peak at 1 (frequency 10).
- $k=2$: Peak at 2 (frequency 10).
- $k=3$: Peak at 3 (frequency 10).
- $k=4$: Peak at 4 (frequency 10).
- $k=5$: Peak at 5 (frequency 10).
- $k=6$: Peak at 6 (frequency 10).
- $k=7$: Peak at 7 (frequency 10).
- $k=8$: Peak at 8 (frequency 10).
- $k=9$: Peak at 9 (frequency 10).
- $k=10$: Peak at 10 (frequency 10).
- $k=11$: Peak at 10 (frequency 10).

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